

IL-132-07

Illinois

Richard H. Brice, Director



Environmental Protection Agency



2200 Churchill Road, Springfield, Illinois 62706

EPA Region 5 Records Ctr.



321828

August 4, 1977

COMMONWEALTH EDISON - PCB Sampling
Technical Center - Maywood

Telephone: 312/345-0780

Address Reply To:

Suite 1205
1701 First Avenue
Maywood, Illinois 60153

Mr. John H. Hughes, Director
Water Quality
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Sir:

Enclosed please find the Inspection Report indicating Agency results of PCB analyses performed on samples obtained during our joint sampling survey conducted on April 18, 1977 at your Maywood Technical Center.

We would appreciate receipt of your PCB analyses performed on duplicate samples obtained during the survey.

Upon our receipt and review of your analyses, we will contact you regarding the significance of the levels obtained and subsequent Agency actions.

Very truly yours,
DIVISION OF WATER POLLUTION CONTROL

Edward L. Marek
Edward L. Marek, Manager, Region II
Field Operations Section, DWPC

ELM:LEZ:jj
cc Records Unit, FOS/DWPC

MJS
HJM
RAS

INSPECTION NOTES

/ COMMONWEALTH EDISON
V Technical Center - Maywood

PCB Sampling

DATE: April 18, 1977

ACCOMPANIED BY:

R.A. Schacht, IEPA
R. Cascarano, Com. Ed.
P. Noska, Com. Ed.
R. Phelan, Com. Ed.

WEATHER: Sunny, Temperature
about 80°F.

On the above date a sampling inspection was conducted at the Commonwealth Edison Tech Center site in order to evaluate levels of PCB's (polychlorinated biphenyls) in both soils on the plant site and sediments in the Des Plaines River. Askarel filled transformers are stored on the plant site and previous inspections had determined that detectable levels of PCB's were present in storm water discharges and in one soil sample obtained from the facility site.

The soil samples were obtained from the specified areas from within 3 inches of the soil surface and transferred to the sample bottles with use of a hand garden tool. Two replicate samples, from each area, were provided for Commonwealth Edison. Their Technical Center had recently acquired gas chromatographic analytical equipment and they also intended to send one of the samples for private laboratory analysis.

The river sediment samples were obtained by R. Schacht, by use of a standard sieve.

The nine samples were iced after collection and transported, by the writer, the next day to our Springfield laboratories for analysis.

The following samples were obtained:

NO.1: obtained from the soil immediately northeast of a storm drain which receives runoff from the storage yards. See the attached drawing for location of the soil samples. This area is located west of transformer storage areas. Lab result=43.1ppm.

NO.2: obtained from the soil at the south end of the facility from within a row of stored transformers. This row presently stores all the askarel filled transformers at the facility site. The sample location was about 75 feet north of the south boundary fence. Lab result=14.3ppm.

NO.3: obtained from the soil at the east end of the facility from within a row of stored, oil filled (non-askarel), transformers. The sample location was about 15 feet north of a boundary fence. Lab result=86.4ppm.

NO.4: obtained from the soil at the northeast end of the facility where previously dumpsters, which received damaged capacitors (askarel filled), were stored. Lab result=210.0ppm.

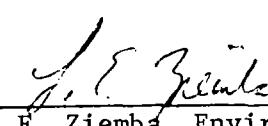
NO.5: Des Plaines River sediment just downstream of the storm sewer located south of the Chicago Great Western Railroad. This storm sewer discharges, in addition to storm water from the north end of the Tech Center, storm water from local drainage and combined sewer overflows from the Maywood sewer system. Lab result=6.0ppm.

NO.6: Des Plaines River sediment, along the west bank, about 40 feet upstream of the Chicago Great Western Railroad. Lab result=1.65ppm.

NO.7: Des Plaines River sediment just downstream of IDOT pumping station located immediately south of I-90. This pumping station discharges, in addition to storm water from the south end of the Tech Center, storm water from the I-90 expressway system. Lab result=4.08ppm.

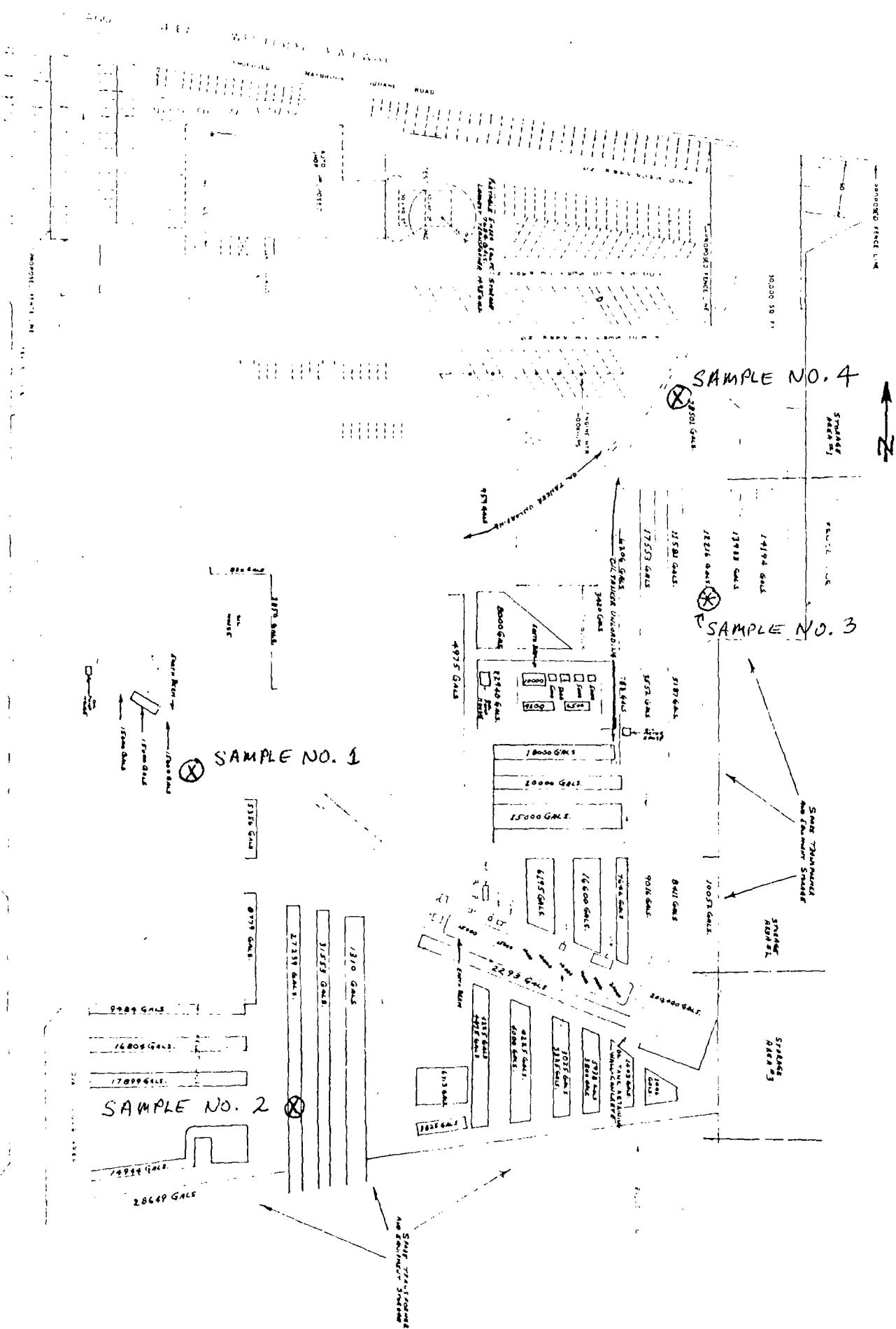
NO.8: Des Plaines River sediment about 25 feet upstream of Roosevelt Road. The sample was obtained from along the west bank. Lab result=2.5ppm.

NO.9: a soil sample obtained from the Cook County Forest Preserve (Miller Meadows) about 30 feet south of Roosevelt Road and 150 feet west of the Des Plaines River. Lab result=0.23ppm.



L.E. Ziembka, Environmental
Protection Engineer, Maywood

LEZ:jj
7/28/77



SPECIAL ANALYSIS FORM

DOO7636

Time Collected 8:30 AM
 Date Collected 4/18/77
 Facility Name: COMIN E&I Facility Number: TECH CENTER
 Stream Name(s)

Sub-Basin MAYWOOD FOS
 Collector L.E. ZIENISKA/SCHACHT
 File Town MAYWOOD
 Stream Code:

Source of Sample: (Exact Location)

SOIL SAMPLE. SW AREA OF PLANT

ILLINOIS STATE WATER POLLUTION CONTROL

CIV. FIELD POLYGRAPHIC CONTROL
FIELD OPERATIONS SECTION - REG. 20

Item	Field Dissolved Oxygen	Field pH	Field Temp.
Arsenic	Coliform/100ml	BOD	
Barium	Fecal Coliform 100 ml	COD	
Boron	Fecal Strep 100 ml	TS/EC	
Cadmium	Algae (Total) /ml	Susp. Solids	
Copper	Ammonia (N)	Vol. Susp. Solids	
Chromium (tri)	Organic Nitrogen (N)	pH (units)	
Chromium (hex)	Nitrate + Nitrite(N)	Turbidity (JTU)	
Iron (Total)	Phosphorus (P)	Hardness	
Iron (Dissolved)	Chloride	Alkalinity	
Lead	Fluoride	Total Acidity	
Manganese	Sulfate	Free Acidity	
Mercury (ppb)	Cyanide		
Nickel	MBAS		
Selenium	Phenol (ppb)		
Silver	Transported by: <u>J.E. Zieniska</u>		
Zinc	Received by: _____		
Results in mg/l unless otherwise noted.	Transported by: _____		
100% Recycled Paper	Received by: _____		

FOR LAB USE ONLY	
Lab Number: <u>DOO7636</u>	Rec'd by: <u>DRH</u>
Date sample received: <u>4/19/77</u>	Date analysis completed: <u>4/21/77</u>
Date results forwarded: <u>4/21/77</u>	
Total Tests requested: <u>7</u>	
Lab Section: <u>Springfield</u>	Supervisor: <u>J. Hurley</u>

Hill

SPECIAL ANALYSIS FORM

D007637

Time Collected 8:45 A.M.
 Date Collected 4/18/77
 Facility Name: COMBI ED. TECH CENTER
 Stream Name(s)

Sub-Basin MAYWOOD - FOS

Collector L.E. ZIEMBA / SCHACHT
 File Town MAYWOOD
 Stream Code:

Source of Sample: (Exact Location)

SOIL SAMPLE, SOUTH END OF PROPERTY

RECEIVED

U.S. ENVIRONMENTAL PROTECTION AGENCY

Physical Observations, Remarks:

JUN 6 1977

DR. WATER POLLUTION CONTROL

FIELD DATA SHEET FOR 20

Item	Field Dissolved Oxygen	Field pH	Field Temp.
Arsenic	Coliform/100ml	BOD	
Barium	Fecal Coliform 100 ml	COD	
Boron	Fecal Strep 100 ml	TS/EC	
Cadmium	Algae (Total) /ml	Susp. Solids	
Copper	Ammonia (N)	Vol. Susp. Solids	
Chromium (tri)	Organic Nitrogen (N)	pH (units)	
Chromium (hex)	Nitrate + Nitrite(N)	Turbidity (JTU)	
Iron (Total)	Phosphorus (P)	Hardness	
Iron (Dissolved)	Chloride	Alkalinity	
Lead	Fluoride	Total Acidity	
Manganese	Sulfate	Free Acidity	
Mercury (ppb)	Cyanide	Oil	
Nickel	MBAS		
Selenium	Phenol (ppb)		
Silver	Transported by: <u>G. J. Gentry</u>		
Zinc	Received by: _____		
Results in mg/l unless otherwise noted.	Transported by: _____		
100% Recycled Paper	Received by: _____		

D007637 FOR LAB USE ONLY

Lab Number: DR 11 Rec'd by: DR 11

Date sample received: 4/19/77 Time: 1:30pm

Date analysis completed: 6/6/77

Date results forwarded: 6/6/77

Total Tests requested: 7 Tests run: 7

Lab Section: Springfield Supervisor: D. Shirley

H-P-LET

SPECIAL ANALYSIS FORM

DO007638

Date Collected 9/21/01

Sub-Basin MARYWOOD-FOS

Date Collected 4/18/77

Collector L.E. ZIEMKA/SCHACAT

Facility Name: COAM. ED. TECH CENTER Facility Number:

File Town MARYWOOD

Stream Name(s)

Stream Code:

Source of Sample: (Exact Location)

SOIL SAMPLE - EAST END OF PROPERTY

RECEIVED

U.S. ENVIRONMENTAL PROTECTION AGENCY

Physical Observations, Remarks:

WEATHER

ON WATER 20° C / 68° F

Item	Field Dissolved Oxygen	Field pH	Field Temp.
Arsenic	Coliform/100ml	BOD	
Barium	Fecal Coliform 100 ml	COD	
Boron	Fecal Strep 100 ml	TS/EC	
Cadmium	Algae (Total) /ml	Susp. Solids	
Copper	Ammonia (N)	Vol. Susp. Solids	
Chromium (tri)	Organic Nitrogen (N)	pH (units)	
Chromium (hex)	Nitrate + Nitrite(N)	Turbidity (JTU)	
Iron (Total)	Phosphorus (P)	Hardness	
Iron (Dissolved)	Chloride	Alkalinity	
Lead	Fluoride	Total Acidity	
Manganese	Sulfate	Free Acidity	
Mercury (ppb)	Cyanide	Oil	
Nickel	MBAS		
Selenium	Phenol (ppb)		
Silver	Transported by: <u>J. E. Ziemka</u>		
Zinc	Received by: _____		
Results in mg/l unless otherwise noted.	Transported by: _____		
100% Recycled Paper	Received by: _____		

FOR LAB USE ONLY

Lab Number: <u>DO007638</u>	Rec'd by: <u>DCH</u>
Date sample rec'd: <u>4/19/01</u>	Date time: <u>1:30pm</u>
Date analysis completed: <u>6/6/77</u>	
Date results forwarded: <u>6/6/77</u>	
Total Tests requested: <u>Springfield</u>	Tests run: <u>7</u>
Lab section: <u>Springfield</u>	Supervisor: <u>W. H. Murphy</u>

SPECIAL ANALYSIS FORM

Date Collected 9/18/81Sub-Basin MAYWOOD FOSD007633Date Collected 4/18/77Collector L.E. ZIEMER/SCHACKFacility Name: POLY.M. ED. TECH CENTERFile Town MAYWOOD

Stream Name(s)

Stream Code:

Source of Sample: (Exact Location)

SOIL SAMPLE - NORTHEAST AREA OF SITERECEIVED

ILLINOIS STATE PROTECTION AGENCY

Physical Observations, Remarks:

JUN 19 1977

DIV. WATER POLLUTION CONTROL
FIELD OFFICE, CHICAGO, ILLINOIS 60626

Item	Field Dissolved Oxygen	Field pH	Field Temp.
Arsenic	Coliform/100ml	BOD	
Barium	Fecal Coliform 100 ml	COD	
Boron	Fecal Strep 100 ml	TS/EC	
Cadmium	Algae (Total) /ml	Susp.Solids	
Copper	Ammonia (N)	Vol.Susp.Solids	
Chromium (tri)	Organic Nitrogen (N)	pH (units)	
Chromium (hex)	Nitrate + Nitrite(N)	Turbidity (JTU)	
Iron (Total)	Phosphorus (P)	Hardness	
Iron (Dissolved)	Chloride	Alkalinity	
Lead	Fluoride	Total Acidity	
Manganese	Sulfate	Free Acidity	
Mercury (ppb)	Cyanide	Oil	
Nickel	MBAS		
Selenium	Phenol (ppb)		
Silver	Transported by: <u>J.L. Yeale</u>		
Zinc	Received by: _____		
Results in mg/l unless otherwise noted.	Transported by: _____		
100% Recycled Paper	Received by: _____		

FOR LAB USE ONLY	
Lab Number: <u>D007633</u>	Rec'd by: <u>DRH</u>
Date sample received: <u>APR 19 1977</u>	Date sample received: <u>4:30 pm</u>
Date analysis completed: <u>6/6/77</u>	
Date results forwarded: <u>6/6/77</u>	
Total Tests requested: <u>7</u>	Tests run: <u>7</u>
Lab Section: <u>Springfield</u>	Supervisor: <u>J. Hurley</u>

H 5-62

SPECIAL ANALYSIS FORM

D007640

Time Collected 9/30/61 Sub-Basin MAYWOOD - FCIS
 Date Collected 9/18/77 Collector L. E. ZIEGLER / R. SCHAFER
 Facility Name: CORRIE E.O. TECH CENTER Facility Number:
 File Town MAYWOOD
 Stream Name(s) DES PLAINES R Stream Code:
 Source of Sample: (Exact Location)

RIVER SEDIMENT @ OUTFALL (~~WEST BANK~~) OUTSIDE SPILLWAY
 JUST DOWNSTREAM OF R.R. TRESTLE

RECEIVED

Physical Observations, Remarks: BLACK, SLUDGE LIKE DEPOSIT ENVIRONMENTAL PROTECTION AGENCY

11/10/1977

ENVIRONMENTAL POLLUTION CONTROL

Test	Field Dissolved Oxygen	Field pH	Field Section - Reg. No.
Arsenic	Coliform/100ml	BOD	
Barium	Fecal Coliform 100 ml	COD	
Boron	Fecal Strep 100 ml	TS/EC	
Cadmium	Algae (Total) /ml	Susp. Solids	
Copper	Ammonia (N)	Vol. Susp. Solids	
Chromium (tri)	Organic Nitrogen (N)	pH (units)	
Chromium (hex)	Nitrate + Nitrite(N)	Turbidity (JTU)	
Iron (Total)	Phosphorus (P)	Hardness	
Iron (Dissolved)	Chloride	Alkalinity	
Lead	Fluoride	Total Acidity	
Manganese	Sulfate	Free Acidity	
Mercury (ppb)	Cyanide		
Nickel	MBAS		
Selenium	Phenol (ppb)		
Silver	Transported by: <u>J. E. Ziegler</u>		
Zinc	Received by: _____		
Results in mg/l unless otherwise noted.	Transported by: _____		
100% Recycled Paper	Received by: _____		

6000 $\mu\text{g}/\text{ppb}$ (ppb) Oil
 6.0 $\mu\text{g}/\text{PPM}$ TOTAL PCB'S
 Other (Specify)

Lab Number:	D007640	Rec'd by:	DKH
Date sample rec'd:	10/19/1977	Date analysis completed:	11/6/77
Date results forwarded:	11/6/77	Total Tests requested:	1
Lab Section:	Springfield	Supervisor:	J. Kline

#6-62

SPECIAL ANALYSIS FORM

D007641

Time Collected 9 AMSub-Basin MAWESO F05Date Collected 4/18/77Collector ZIEMBA / SCHACHTFacility Name: CORPORATE TECH CENTERFile Town PLAYASIDEStream Name(s) CES PLAINES R.

Stream Code:

Source of Sample: (Exact Location)

RIVER SEDIMENT, ALONG WEST BANK, 2 40' UPSTREAM OF R.R. TRESTLE

RECEIVED

Physical Observations, Remarks:

BLACK, SLUDGE-LIKE DEPOSITS

JUN 09 1977

DIV. WATER POLLUTION CONTROL

LABORATORY SECTION: E&E 20

	Field Dissolved Oxygen	Field pH	Field Temp
Arsenic	Coliform/100ml	BOD	
Barium	Fecal Coliform 100 ml	COD	
Boron	Fecal Strep 100 ml	TS/EC	
Cadmium	Algae (Total) /ml	Susp. Solids	
Copper	Ammonia (N)	Vol. Susp. Solids	
Chromium (tri)	Organic Nitrogen (N)	pH (units)	
Chromium (hex)	Nitrate + Nitrite(N)	Turbidity (JTU)	
Iron (Total)	Phosphorus (P)	Hardness	
Iron (Dissolved)	Chloride	Alkalinity	
Lead	Fluoride	Total Acidity	
Manganese	Sulfate	Free Acidity	
Mercury (ppb)	Cyanide		
Nickel	MBAS		
Selenium	Phenol (ppb)		
Silver	Transported by: <u>J. J. Galt</u>		
Zinc	Received by: _____		
Results in mg/l unless otherwise noted.	Transported by: _____		
100% Recycled Paper	Received by: _____		

1650 ug/l (ppb) Oil
1.65 ug/l RPM
TOTAL PCB'S
Other (Specify)

D007641 FOR LAB USE ONLY	
Lab Number: <u>D007641</u>	Rec'd by: <u>DRH</u>
Date sample rec'd: <u>4/19/1977</u>	time: <u>1:30pm</u>
Date analysis completed: <u>6/6/77</u>	
Date results forwarded: <u>6/6/77</u>	
Total Tests requested: <u>7</u> Tests run: <u>7</u>	
Lab Section: <u>firefield</u>	Supervisor: <u>Hurley</u>

#1-Let

SPECIAL ANALYSIS FORM

D007642

Date Collected 10/26/77Sub-Basin MARYWOOD - FossDate Collected 4/18/77Collector ZIEGLER / SCHEERFacility Name: COMM. & M REC'D CENTERFile Town MARYWOODStream Name(s) DES PLAINES R.

Stream Code:

Source of Sample: (Exact Location)

RIVER SEDIMENT @ downstream edge of IDOT Highway station
OUTFALL (\approx 70' downstream of I-90).

Physical Observations, Remarks: BLACK SLUDGE-LIKE DEPOSITS RECEIVED

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

JUN 09 1977

Item	Field Dissolved Oxygen	Field pH	SR. WATER POLLUTANT	Field Temp.
Arsenic	Coliform/100ml		BOD	
Barium	Fecal Coliform 100 ml		COD	
Boron	Fecal Strep 100 ml		TS/EC	
Cadmium	Algae (Total) /ml		Susp. Solids	
Copper	Ammonia (N)		Vol. Susp. Solids	
Chromium (tri)	Organic Nitrogen (N)		pH (units)	
Chromium (hex)	Nitrate + Nitrite(N)		Turbidity (JTU)	
Iron (Total)	Phosphorus (P)		Hardness	
Iron (Dissolved)	Chloride		Alkalinity	
Lead	Fluoride		Total Acidity	
Manganese	Sulfate		Free Acidity	
Mercury (ppm)	Cyanide			
Nickel	MBAS			
Selenium	Phenol (ppb)			
Silver	Transported by: <u>J. E. Smith</u>			
Zinc	Received by: _____			
Results in mg/l unless otherwise noted.	Transported by: _____			
100% Recycled Paper	Received by: _____			

D007642 FOR LAB USE ONLY	
Lab Number: <u>APR 19 1977</u>	Rec'd by: <u>DRH</u>
Date sample rec'd: <u>APR 19 1977</u>	Time: <u>1:30 pm</u>
Date analysis completed: <u>6/1/77</u>	
Date results forwarded: <u>6/6/77</u>	
Total Tests requested: <u>7</u> Tests run: <u>7</u>	
Lab Section: <u>Springfield</u>	Supervisor: <u>J. Murphy</u>

3 lot

SPECIAL ANALYSIS FORM

D007643

Time Collected 10 AMSub-Basin MAYWOOD-FSDate Collected 4/18/77Collector ZERKEL / SCHAKATFacility Name: COMM. ED TECH CENTERFile Town MAYWOOD

Stream Name(s)

Stream Code:

Source of Sample: (Exact Location)

RIVER SEDIMENT, ALONG WEST BANK, ~ 25' UPSTREAM OF
 ROSEBRIEF RD; TWO OYSTERFALLS, NOT DISCHARGING, C LOCATION

Physical Observations, Remarks: BLACK, SLIME-LIKE DEPOSITS FOUNDILL. ENVIRONMENTAL POLLUTION

JUN 6 1977

Item	Field Dissolved Oxygen	Field pH	DIV. WATER	Field Control
Arsenic	Coliform/100ml			BOD
Barium	Fecal Coliform 100 ml			COD
Boron	Fecal Strep 100 ml			TS/EC
Cadmium	Algae (Total) /ml			Susp. Solids
Copper	Ammonia (N)			Vol. Susp. Solids
Chromium (tri)	Organic Nitrogen (N)			pH (units)
Chromium (hex)	Nitrate + Nitrite(N)			Turbidity (JTU)
Iron (Total)	Phosphorus (P)			Hardness
Iron (Dissolved)	Chloride			Alkalinity
Lead	Fluoride			Total Acidity
Manganese	Sulfate			Free Acidity
Mercury (ppb)	Cyanide			
Nickel	MBAS			
Selenium	Phenol (ppb)			
Silver	Transported by: <u>J. E. Jain</u>			
Zinc	Received by: _____			
Results in mg/l unless otherwise noted.	Transported by: _____			
100% Recycled Paper	Received by: _____			

2530 ug/g ppm Oil
 TOTAL PCB'S
 Other (Specify)

2.5 ug/g ppm

FOR LAB USE ONLY	
Lab Number: <u>D007643</u>	Rec'd by: <u>DR H</u>
Date sample received: <u>4/19/77</u>	Time: <u>1:30 pm</u>
Date analysis completed: <u>6/6/77</u>	
Date results forwarded: <u>6/6/77</u>	
Total Tests requested: <u>7</u> Tests run: <u>7</u>	
Lab Section: <u>Springfield</u>	Supervisor: <u>J. Murphy</u>

#4-CET

SPECIAL ANALYSIS FORM

DUV 7042

Time Collected 10 AMSub-Basin KAYWOOD-F85Date Collected 4/18/77Collector ZEBRUSKA (SCHNEIDER)Facility Name: CORNY ED TECH CENTERFile Town KAYWOOD

Stream Name(s)

Stream Code:

Source of Sample: (Exact Location)

SURFACE SOIL (MILLER MEADOWS FOREST PRESERVE) ≈ 30' SOUTH
OF ROOSEVELT ROAD & 150' WEST OF RESERVATION R.

Physical Observations, Remarks:

Humus like soilRECEIVEDLL. (Signature)

Test	Field Dissolved Oxygen	Field pH	SN.	Field Strength. REG. 26
Arsenic	Coliform/100ml			BOD
Barium	Fecal Coliform 100 ml			COD
Boron	Fecal Strep 100 ml			TS/EC
Cadmium	Algae (Total) /ml			Susp. Solids
Copper	Ammonia (N)			Vol. Susp. Solids
Chromium (tri)	Organic Nitrogen (N)			pH (units)
Chromium (hex)	Nitrate + Nitrite(N)			Turbidity (JTU)
Iron (Total)	Phosphorus (P)			Hardness
Iron (Dissolved)	Chloride			Alkalinity
Lead	Fluoride			Total Acidity
Manganese	Sulfate			Free Acidity
Mercury (ppb)	Cyanide			Oil
Nickel	MBAS			TOTAL PCB'S
Selenium	Phenol (ppb)			Other (Specify)
Silver	Transported by: <u>J. S. JONES</u>			6.23 ug/g CRM
Zinc	Received by: _____			0.23 mg/g CRM
Results in mg/l unless otherwise noted.	Transported by: _____			FOR LAB USE ONLY
100% Recycled Paper	Received by: _____			DO NOT USE
				Lab Number: <u>1007344</u> Rec'd by: <u>DRH</u>
				Date sample received: <u>4/18/77</u> Time: <u>1:30 pm</u>
				Date analysis completed: <u>6/6/77</u>
				Date results forwarded: <u>6/6/77</u>
				Total Tests requested: <u>7</u> Tests run: <u>7</u>
				Lab Section: <u>Environmental Services</u> Supervisor: <u>DRH</u>

COMMUNICATING EDITION 2.

TECHNICAL CENTER
DEE PLAINES VALLEY AREA HIGH SCHOOL
HIGHWOOD CO. EDUCATION

MAYWOOD, ILL.

A. GRIEDER
5-11-77

Revd from DICK SUSKEL
PCO on 9/13/77

